

IN THE SPECIFICATION

Please amend the paragraph beginning at line 11 on page 21 as follows:

The foregoing embodiments of a lighting fixture (300) will generally reside in one of any number of different housings. Such, housing is, however, not necessary, and the lighting fixture (300) could be used without a housing to still form a lighting fixture. A housing may provide for lensing of the resultant light produced and may provide protection of the lighting fixture (300) and its components. A housing may be included in a lighting fixture as this term is used throughout this document. FIG. 4 shows an exploded view of one embodiment of a lighting fixture of the present invention. The depicted embodiment comprises a substantially cylindrical body section (362), a lighting fixture (364), a conductive sleeve (368), a power module (372), a second conductive sleeve (374), and an enclosure plate (378). It is to be assumed here that the lighting fixture (364) and the power module (372) contain the electrical structure and software of lighting fixture (300) a different power module and lighting fixture (300) as known to the art, or as described in United States Patent Application Ser. No. 09/215,624 the entire disclosure of which is herein incorporated by reference. Screws (382), (384), (386), (388) allow the entire apparatus to be mechanically connected. Body section (362), conductive sleeves (368) and (374) and enclosure plate (378) are preferably made from a material that conducts heat, such as aluminum. Body section (362) has a an emission end (361), a reflective interior portion (not shown) and an illumination end (363). Lighting module (364) is mechanically affixed to said illumination end (363). Said emission end (361) may be open, or, in one embodiment may have affixed thereto a filter (391). Filter (391) may be a clear filter, a diffusing filter, a colored filter, or any other type of filter known to the art. In one embodiment, the filter will be permanently attached to the body section (362), but in other embodiments, the filter could be removably attached. In a still further embodiment, the filter (391), need not be attached to the emission end (361) of body portion (362) but may be inserted anywhere in the direction of light emission from the lighting fixture (364). Lighting fixture (364) may be disk-shaped with two sides. The illumination side (not shown) comprises a plurality of component light sources which produce a predetermined selection of different spectrums of light. The connection side may hold an electrical connector male pin assembly (392). Both the illumination side and the connection side

can be coated with aluminum surfaces to better allow the conduction of heat outward from the plurality of component light sources to the body section (362). Likewise, power module (372) is generally disk shaped and may have every available surface covered with aluminum for the same reason. Power module (372) has a connection side holding an electrical connector female pin assembly (394) adapted to fit the pins from assembly (392). Power module (372) has a power terminal side holding a terminal (398) for connection to a source of power such as an AC or DC electrical source. Any standard AC or DC jack may be used, as appropriate.

Please amend the paragraph beginning on line 8 of page 31 as follows:

FIG. 8a shows one embodiment of the system (2000) where a control system (2030) may be used in conjunction with a lighting fixture (2010) to enable control of the lighting fixture (2010). The control system ~~(2030) may~~ (2030) may be automatic, may accept input from a user, or may be any combination of these two. The system (2000) may also include a processor (2020) which may be processor (316) or another processor to enable the light to change color.

Please amend the paragraph beginning on line 14 of page 31 as follows:

FIG. 9 shows a more particular embodiment of a system (2000) a. A user computer interface control system (2032) with which a user may select a desired color of light is used as a control system (2030). ~~This may be the user interface (401) or could be a separate interface.~~ The interface could enable any type of user interaction in the determination of color. For example, the interface may provide a palette, chromaticity diagram, or other color scheme from which a user may select a color, e.g., by clicking with a mouse on a suitable color or color temperature on the interface, changing a variable using a keyboard, etc. The interface may include a display screen, a computer keyboard, a mouse, a trackpad, or any other suitable system for interaction between the processor and a user. In certain embodiments, the system may permit a user to select a set of colors for repeated use, capable of being rapidly accessed, e.g., by providing a simple code, such as a single letter or digit, or by selecting one of a set of preset colors through an interface as described above. In certain embodiments, the interface may also include a look-up

table capable of correlating color names with approximate shades, converting color coordinates from one system, (e.g., RGB, CYM, YIQ, YUV, IISV, IILS, XYZ, etc.) to a different color coordinate system or to a display or illumination color, or any other conversion function for assisting a user in manipulating the illumination color. The interface may also include one or more closed-form equations for converting from, for example, a user-specified color temperature (associated with a particular color of white light) into suitable signals for the different component illumination sources of the lighting fixture (2010). The system may further include a sensor as discussed below for providing information to the processor (2020), e.g., for automatically calibrating the color of emitted light of the lighting fixture (2010) to achieve the color selected by the user on the interface.

Please amend the paragraph beginning on line 5 of page 36 as follows:

Any of the above systems could be deployed in the system disclosed in FIG 11. A lighting system for a location may comprise a plurality of lighting fixtures (2301) which are controllable by a central control system (2303). The light within the location (or on a particular location such as the stage (2305) depicted here) is now desired to mimic another type of light such as sunlight. A first sensor (2307) is taken outside and the natural sunlight (2309) is measured and recorded. This recording is then provided to central control system (2303). A second sensor (which may be the same sensor in one embodiment) (2317) is present on the stage (2305). The central control system (~~2309~~) (2303) now controls the intensity and color of the plurality of lighting fixtures (2301) and attempts to match the input spectrum of said second sensor (2317) with the prerecorded natural sunlight's (2309) spectrum. In this manner, interior lighting design can be dramatically simplified as desired colors of light can be reproduced or simulated in a closed setting. This can be in a theatre (as depicted here), or in any other location such as a home, an office, a soundstage, a retail store, or any other location where artificial lighting is used. Such a system could also be used in conjunction with other secondary light sources to create a desired lighting effect.

Please amend the paragraph beginning on line 16 of page 54 as follows:

A high-quality LED-based light may be configured to replace a fluorescent tube. In one embodiment, a replacement high-quality LED light source useful for replacing fluorescent tubes would function in an existing device designed to use fluorescent tubes. Such a device is shown in FIG. 28. FIG. 28 shows a typical fluorescent lighting fixture or other device configured to accept ~~fluorescent~~ fluorescent tubes ~~(2402)~~ (2404). The lighting fixture (2402) may include a ballast (2410). The ballast (2410) maybe a magnetic type or electronic type ballast for supplying the power to at least one tube (2404) which has traditionally been a fluorescent tube. The ballast (2410) includes power input connections (2414) to be connected with an external power supply. The external power supply may be a building's AC supply or any other power supply known in the art. The ballast (2410) has tube connections (2412) and (2416) which attach to a tube coupler (2408) for easy insertion and removal of tubes (2404). These connections deliver the requisite power to the tube. In a magnetic ballasted system, the ballast (2410) may be a transformer with a predetermined impedance to supply the requisite voltage and current. The fluorescent tube (2404) acts like a short circuit so the ballast's impedance is used to set the tube current. This means that each tube wattage requires a particular ballast. For example, a forty-watt fluorescent tube will only operate on a forty-watt ballast because the ballast is matched to the tube. Other fluorescent lighting fixtures use electronic ballasts with a high frequency sine wave output to the bulb. Even in these systems, the internal ballast impedance of the electronic ballast still regulates the current through the tube.